

## Claims

1. A communications system comprising

- a plurality of common channels (P-CCPCH, CCH) including  
5 a primary common control physical channel (P-CCPCH),
- a plurality of dedicated channels (DCH)
- a synchronisation channel (SCH),
- the primary common control physical channel (P-CCPCH)  
and the synchronisation channel (SCH) being transmitted  
10 time multiplexed, and
- the transmit power of dedicated channels (DCH) being  
reduced during the transmission of the synchronisation  
channel (SCH).

15 2. The communications system according to claim 1,

- the common channels and the dedicated channels being  
transmitted code multiplexed.

3. The communications system according to claim 1 or 2,

- 20 - the communications system being a Wide-Band-CDMA-System  
(W-CDMA)

4. The communications system according to claim 1, 2 or 3,

- 25 - the communications system being a Universal Mobile  
Telecommunications System (UMTS)

5. The communications system according to claim 1, 2, 3 or 4,

- 30 - the reduction of the transmit power of dedicated  
channels (DCH) being such that the total transmit power  
of the used channels is substantially constant.

6. The communications system according to any of the  
preceding claims,

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the reduction of the transmit power of dedicated channels being such that the total transmit power of the used channels is substantially constant and not above an amplifier power limit.

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7. The communications system according to any of the preceding claims,  
the transmit power of the dedicated channels being reduced  
during the transmission of the synchronisation channel (SCH)  
10 by the difference between the transmit power of the synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH).

8. The communications system according to any of the  
15 preceding claims,  
the transmit power of dedicated channels (DCH) being reduced at the beginning of the synchronisation channel (SCH), and the transmit power of dedicated channels (DCH) being increased at the end of the synchronisation channel (SCH).

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9. The communications system according to any of the preceding claims,  
the transmit power of dedicated channels (DCH) being reduced at the beginning of the synchronisation channel (SCH) by the  
25 difference between the transmit power of the synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH), and  
the transmit power of dedicated channels (DCH) being increased at the end of the synchronisation channel (SCH) by  
30 the difference between the transmit power of the synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH).

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10. The communications system according to any of the preceding claims,  
the reduction of the transmit power of dedicated channels (DCH) during the transmission of the synchronisation channel  
5 (SCH) being triggered in dependence on information about the synchronisation channel timing.

11. The communications system according to any of the preceding claims,  
10 the reduction of the transmit power of dedicated channels being such that the total transmit power of the used channels is substantially constant and not above an amplifier power limit just before the transmission of the synchronisation channel, just after the transmission of the synchronisation  
15 channel and during the transmission of the synchronisation channel.

12. The communications system according to any of the preceding claims,  
20 the sum transmit power of the downlink dedicated channels (DCH) being reduced during the transmission of the synchronisation channel (SCH) in order to keep the total output power at the base station power amplifier below a maximum power limit.  
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13. A method for transmitting data in a communications system,  
- the communications system comprising  
- a plurality of common channels (P-CCPCH, CCH) including a  
30 primary common control physical channel (P-CCPCH),  
- a plurality of dedicated channels (DCH), and  
- a synchronisation channel (SCH), whereby

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the primary common control physical channel (P-CCPCH) and the synchronisation channel (SCH) are transmitted time multiplexed, and

5 the transmit power of dedicated channels (DCH) is reduced during the transmission of the synchronisation channel (SCH).

14. A base station system for transmitting data in a communications system,

- the communications system comprising
- 10 - a plurality of common channels (P-CCPCH, CCH) including a primary common control physical channel (P-CCPCH),
- a plurality of dedicated channels (DCH), and
- a synchronisation channel (SCH),
- the base station system being arranged such,
- 15 - that the primary common control physical channel (P-CCPCH) and the synchronisation channel (SCH) are transmitted time multiplexed, and
- that the transmit power of dedicated channels (DCH) is reduced during the transmission of the synchronisation
- 20 channel (SCH).